Preliminary Datasheet

WPIR-501

Wireless-N PCI Adapter

Up to 300Mbps data rate, 6x better performance

SparkLAN WPIR-501 PCI Adapter is IEEE 802.11n draft 2.0 compliant. It can deliver 6x better performance than normal 802.11g while fully backward compatible with conventional 802.11g gears. The MIMO technology (multi-in, multi-out) is successful in enhancing coverage range and throughput and save the cost to purchase additional devices to deploy household WLAN environment. The Wireless-N PCI adapter achieves incredible data rate of up to 300Mbps, which can allow you to enjoy high speed internet access for data, video, and voice at home and office. It is designed to stream bandwidth-sensitive applications, including high-definition video, VoIP phone calls, movies, music, pictures, and online games.

Maximize your network security

To maximize your network security and privacy, SparkLAN Wireless-N PCI adapter incorporates 64/128 bit WEP Encryption, WPA, WPA2, and QoS, which can to keep your wireless network secure.

Product Hightlights

- IEEE802.11n draft compliant
- Delivers up to 300 Mbps data rate
- 6x better performance
- Ideal for bandwidth-sensitive application
- Designed to stream movies, music, photos, HD video, VoIP phone call, and large file

Features

- MIMO technology
- Backward compliant with 802.11b/g
- Easy-to-install
- Support Window 2000/XP
- Advanced security: 64/128bit WEP, WPA, WPA2
- RF Chain: 2T3R for HT20,HT40, 1T3R for 802.11b/g mode

Specifications

Chipset	Ralink RT2860 (MAC/BBP) and RT2820(RF)
Interface	PCI V2.3
LED Indicators	Power, Activity
Antenna	Three external RSMA dipole antenna antenna for Tx/Rx ; peak gain : 1.5dBi
Radio Characteristics	
Standard	IEEE draft 802.11n, 802.11b/g
Frequency Band	**802.11b** ISM band 2.400 ~ 2.484GHz (subject to local regulations) **802.11g** ISM band 2.400 ~ 2.484GHz (subject to local regulations) **802.11n draft** ISM band 2422 – 2452MHz (channel BW=40MHz) 2400 – 2483.5MHz (channel BW=20MHz)
RF chain	2T3R for HT20,HT40, 1T3R for 802.11b/g mode
Spreading	**802.11b** : Direct Sequence Spread Spectrum (DSSS) **802.11g**:Orthogonal Frequency Division Multiplexing (OFDM) **HT20** : Orthogonal Frequency Division Multiplexing (OFDM) multiple-input/multiple-output (MIMO) **HT40** : Orthogonal Frequency Division Multiplexing (OFDM) multiple-input/multiple-output (MIMO)
Modulation	**802.11g** G64 QAM, 16 QAM,QPSK, BPSK **802.11b** GCCK,DQPSK,DBPSK **HT20,HT40** 64 QAM, 16 QAM,QPSK, BPSK Data
Data Rate	**802.11b** 11,5.5, 2, 1 Mbps per channel **802.11g** 54, 48, 36,24,18,12, 9, 6 Mbps per channel **HT20** 144, 130, 115, 86, 57, 43, 28, 14 Mbps **HT40** 270, 240, 180, 120, 90, 60, 30Mbps
Receive sensitivity	**802.11g (3RX)** Nominal Temp Range: - 6Mbps @ -91dBm, typical, +/-2dBm - 54Mbps @ -72dBm, typical, +/-2dBm **802.11b** Typ. -85dBm@11Mbps, +/-2dBm Typ. -92dBm@1Mbps, +/-2dBm **HT20(3RX)** MCS=0 -87dBm, +/-2dBm MCS=15 -67dBm, +/-2dBm **HT40(3RX)** MCS=0 -85dbm, +/-2dBm MCS=15 -64dBm, +/-2dBm

Power Consumption	**802.11b** Continue TX: 620@3.3V Continue RX: 340@3.3V **802.11g** Continue TX: 640@3.3V Continue RX: 340@3.3V **HT20** Continue TX: 660@3.3V Continue RX: 340@3.3V **HT40** Continue TX: 680@3.3V Continue RX: 340@3.3V
Output Power	**802.11g** 15dBm @ 54Mbps **802.11b** 17dBm@11Mbps **HT20** 13dBm@144Mbps **HT40** 11dBm@270Mbps
Software Features	
Security	● 64/128 WEP ● WPA, WPA2
Software Support	Windows 2000/XP
Environmental Specifications	
Dimensions	135*120*23mm
Weight	72g
Temperature	Operating: 0ºC to 55ºC Storage: -20ºC to 80ºC
Humidity	90%,(non-condensing)
Power Supply	
Output	DC 3.3V
Certification	
FCC, CE	
Package Contents	
Wireless-N PCI Adapter	
CD-ROM (User Guide, Utility, QIG, User Manual)	Multi-Language Quick Installation Guide

Specifications are preliminary and subject to change without notice